

Methamphetamine Use and HIV

Dr. Brian J. Dew October 26, 2005

Methamphetamine

Street names: Tina, crystal, meth, speed, crank, chalk, go-fast, zip, cristy, tweak, ice



Methods of Administration







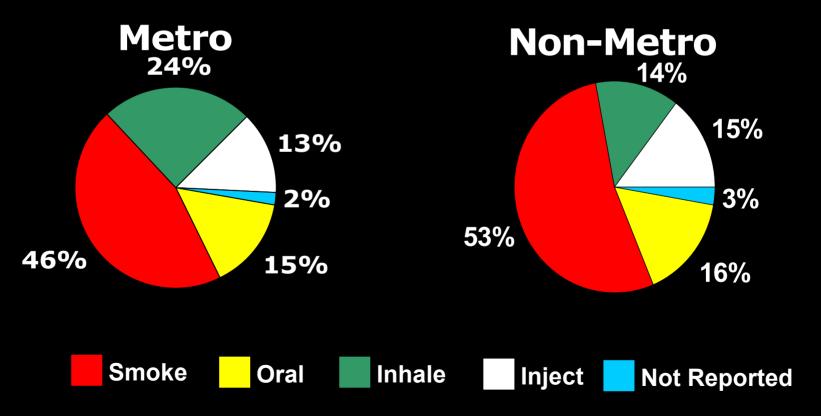




Primary Methamphetamine Treatment Admissions

Percentages for Route of Administration by Metro and Non-Metro Area: First Half 2004

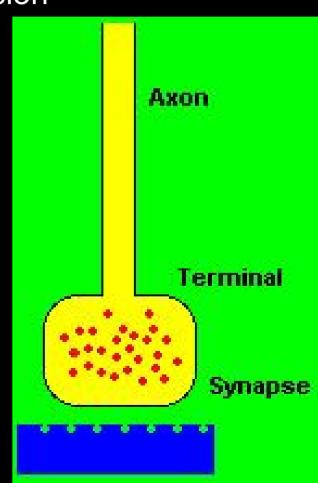
Route of Administration



Source: Georgia Department of Human Resources

What is Methamphetamine?

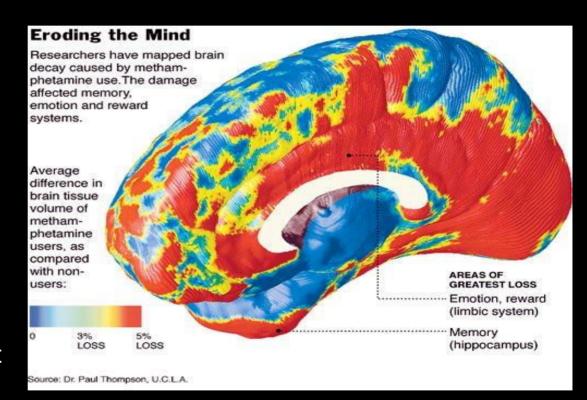
- Most powerful CNS stimulant (With or without a prescription) Impact on neurotransmission
 - Causes leakage of dopamine (regulation of pleasure)
 - Artificially excites the body's natural reward system
- Scheduled II Drug:
 - high potential for abuse
 - currently accepted for medical use (obesity, narcolepsy, ADD)
 - may lead to severe psychological and/or physical dependence



Methamphetamine & the Brain's Limbic System

Limbic System:

- 1) Controls Emotions
- 2) Mood
- 3) Emotional Responses
- 4) Motivation
- 5) Pain and Pleasure Sensations
- 6) Increases Sexual Drive
- 7) Hippocampus: Impairment of Memory
- 8) Hypothalamus: Regulates sleep/wake cycle



Effects of Meth Use

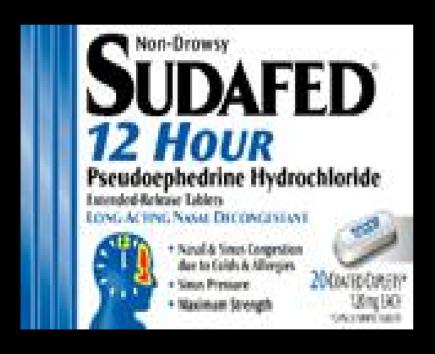
- Length of high: 4-24 hours
- Euphoria, decreased appetite, increased physical activity, aggression, athetosis, irritability, nervousness, insomnia, tremors, anxiety, incessant talking, hyperthermia, accelerated heart beat and blood pressure
- Psychological Effects (prolonged use): symptoms can resemble schizophrenia (paranoia, hallucinations, repetitive behaviors, delusions (insects/parasites on skin).
- Affects subjective pleasure of sexual experience

Long Term Use: Potential Side Effects

- Induced psychosis
 - Paranoid ideation
 - Delusions of persecution
- Social withdrawal
- Flattening of affect
- Auditory/tactile/olfactory/visual hallucinations.
- Peripheral physiological effects ("crystal dick")
- Repetitive motor activity

Ingredients (chemical precursors)

1. Psuedoephedrine



Drug Facts

Active ingredient (in each tablet)

Purpose

Pseudoephedrine HCl 120 mg.....

Nasal decongestant

Uses

- temporarily relieves nasal congestion due to the common cold. hay fever or other upper respiratory allergies, and nasal congestion associated with sinusitis
- temporarily relieves sinus congestion and pressure

Warnings

Do not use if you are now taking a prescription monoamine oxidase inhibitor (MAOI) (certain drugs for depression, psychiatric, or emotional conditions, or Parkinson's disease), or for 2 weeks after stopping the MAOI drug. If you do not know if your prescription drug contains an MAOI, ask a doctor or pharmacist before taking this product.

Ask a doctor before use if you have | high blood pressure

- heart disease ■ diabetes
 - thyroid disease
- trouble urinating due to an enlarged prostate gland

Ingredients (cont.)

2. Iodine Crystals



4. Coleman's Fuel



3. Red Phosphorus



5. Acetone



Meth Lab Incidents: 2001





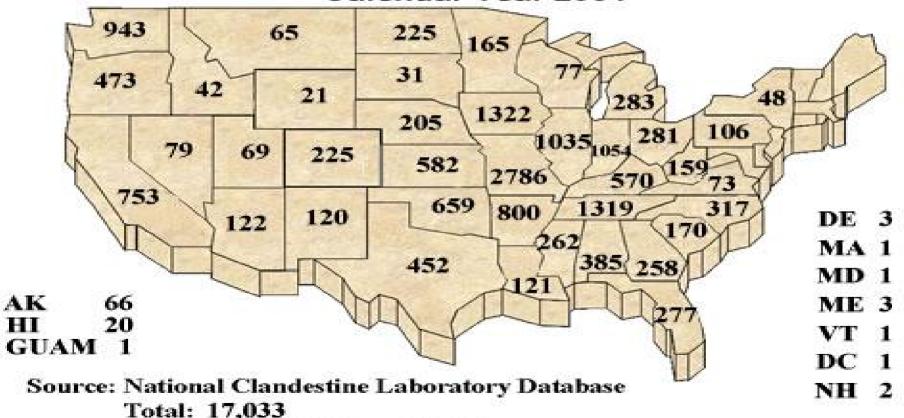
Source: National Clandestine Laboratory Database

Total: 13,537 / 47 States Reporting

Dates: 01/01/01 to 12/31/01

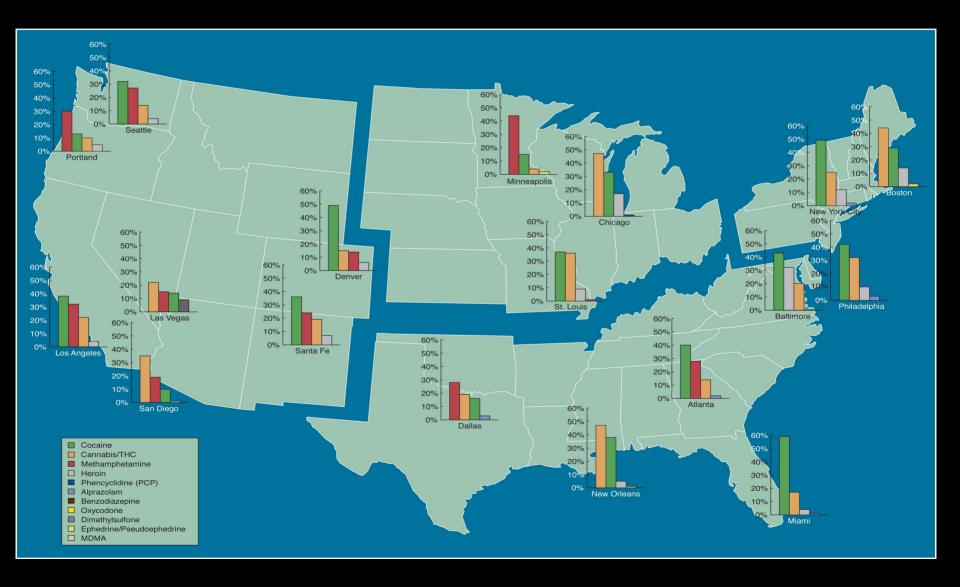
Meth Lab Incidents: 2004

Total of All Meth Clandestine Laboratory Incidents Including Labs, Dumpsites, Chem/Glass/Equipment Calendar Year 2004

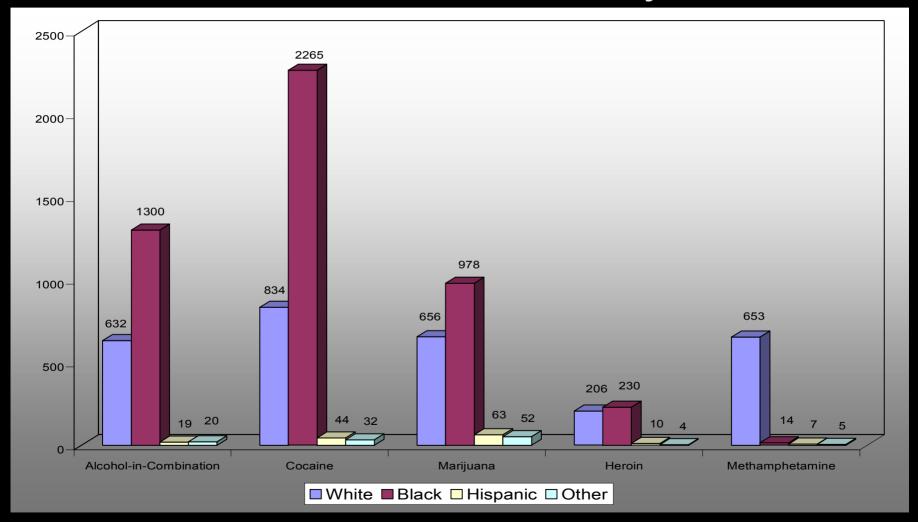


Dates: 01/01/04 to 12/31/04

Drug Seizures (NFLIS, 2004)

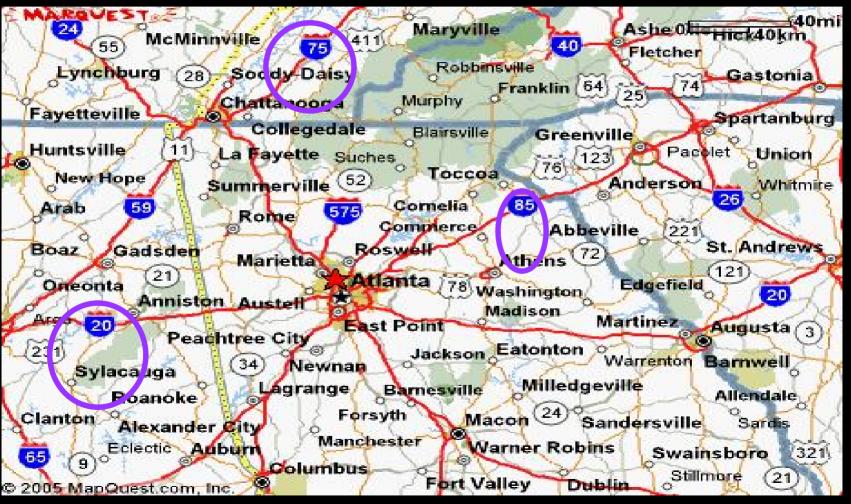


Metro Atlanta Public Substance Abuse Treatment Admissions by Race



Source: Georgia Department of Human Resources

1. Atlanta: "The Hub of the South"



Source: www.mapquest.com

Stimulant Abuse in Atlanta: Methamphetamine

- Methamphetamine indicators increased dramatically in first 6 months of 2004
 - More than 68 percent of law enforcement agencies in Atlanta identified meth as the "greatest threat" in their areas
 - 27 percent of the items reported by NFLIS from October 2003 through September 2004 were methamphetamine.
 - Meth popularity continues to rise; the drug is readily available and prices are low

Stimulant Abuse in Atlanta Methamphetamine

- Primary methamphetamine tx. admissions in Metro Atlanta:
 - 3.1 percent of all admissions in 2002
 - 5.1 percent in 2003
 - 8.1 percent in the first half of 2004
- Primary meth tx. admissions in non-Metro areas: 14 percent of all admissions in first half of 2004

HIV and Methamphetamine: What do we know?

- Research focus has been on MSM
- Few studies examining female users and non-MSM
- Relationship between IDU and HIV not uncommon to other drugs
- The "sexual connection" is what is unique

Findings (Kurtz, 2005)

"The drug allows me to do things I would never be able to do without it. I could never go to a bathhouse if I wasn't cracked out of my skull."

(33 y.o. HIV- user)

"There can be a a bowl of condoms sitting right in the middle of the bed and they're not going to get used. For most people on crystal, its like saying, "Here, have a 22-pound turkey." (44 y.o. HIV+ user)

HIV and Meth: What's the link for MSM?

- Multiple sexual partners (Halkitis, Parsons, & Wilton, 2003), including casual partners (Semple, Patterson, & Grant, 2003)
- Decreased condom use (Fernandez et al., 2004) & HIV seropositive disclosure (Larkins, Reback, & Shoptaw, 2005)
- Prolonged sexual activity and rough sex (Gorman, 1998)
- > probability of HIV infection and having another STD (Gorman, Nelson, & Applegate, 2004; Shoptaw, Peck, & Reback, 2003)
- Reduction in HIV medication adherence (Reback, Larkins, & Shoptaw, 2003)

Impact of Meth on HIV+ Individuals

Reasons for continued meth use:

- 1. Enhances sexual pleasure (increased confidence, loss of inhibitions)
- 2. Self-medicate negative emotions
- 3. Stigma management strategy: Less disclosure expected (certain venues)
- 4. Weakens existing immune system
- 5. Anti-retroviral med's may cause greater effect on the user.
- 6. Financial difficulties
- 7. Inconsistent medical follow-up

Differences between heterosexual and nonheterosexual male users of meth (Dew, Elifson, & Sterk, in progress)

- Sexual at-risk behaviors
 - 50% of heterosexuals & 40% of non-heterosexuals have had sex with IDU (lifetime)
 - Non-heterosexuals had significantly more sexual partners (including casual/anonymous)
 - A greater % of heterosexual users reported almost always or always having sex while high
 - Use of condoms: 44% (hetero) vs. 33% (non-hetero) reported never using one in the last 12 months.
- Reasons to obtain HIV Test Differed
 - Heterosexuals more likely to get tested due to external source (medical provider or partner).
 - Non-heterosexuals had a higher prevalence of testing due to self-perceived risk.
- Non-heterosexuals significantly more likely to be HIV positive

Meth Use and Women

- Atlanta leads the country in treatment admissions for women (proportion of primary admissions)
- Few research studies have examined this population
- Semple et al. (2004) found that adult female meth users engaged in:
 - Multiple sexual partners
 - Risky partner types (anonymous)
 - Increased rates of unprotected vaginal and oral sex
- Reasons for beginning use:
 - To lose weight
 - Feel more attractive
 - Cope with mood

A Community Response to Meth Use

- Increased # of CMA meetings (13/week: nearly doubled in 1 year)
- The Atlanta Crystal Meth Working Working Group
 - History
 - Mission/Goal
 - Accomplishments:
 - Launching educational blitz (posters/ads targeted at MSM community)
 - Summit (mix of community informants/service providers/impacted group)
 - Meth Forum
- Research efforts (ethnographic/clinical)
- Increase in funding from state and national levels

Questions/Feedback

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